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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/733,567	12/08/2000	Jes Thyssen	10508.20 00CXT0669N	3263
25700	7590	10/04/2004	NAD	
FARJAMI & FARJAMI LLP 26522 LA ALAMEDA AVENUE, SUITE 360 MISSION VIEJO, CA 92691			EXAMINER ODOM, CURTIS B	
			ART UNIT	PAPER NUMBER
			2634	

DATE MAILED: 10/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/733,567

Applicant(s)

THYSSEN, JES

Examiner

Curtis B. Odom

Art Unit

2634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 08 December 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 5-45 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-3, 5-17 and 21-45 is/are allowed.
- 6) ☒ Claim(s) 18-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 December 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Specification*

1. The disclosure is objected to because of the following informalities: On page 11, line 16, the sentence should end with a period. Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 18-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Kumazaki et al. (U. S. Patent No. 4, 680, 758).

Regarding claim 18, Kumazaki et al. discloses a method of estimating quantization distortion for a frame of a signal that has been quantized using sample-by-sample quantization, the method comprising:

determining (column 8, line 32-column 9, line 49, Tables I and II) the distribution (amplitudes at each sampling point corresponding to each quantization level, column 4, lines 8-23) of the signal within a plurality of quantization levels;

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estimating (column 7, lines 20-column 8, line 31 and column 9, lines 50-column 10, line 22) an expected quantization distortion ( $P(n-i)$ ) for each of the quantization levels based on the distribution; and

determining (column 7, lines 20-column 8, line 31 and column 9, lines 50-column 10, line 22) an expected quantization distortion ( $P(n)$ ) for the frame as a function of the expected quantization distortion of each of the quantization levels, wherein since  $P(n)$  is the quantization distortion at a sampling point  $n$  in a frame based upon the previously estimated quantization distortion in the frame ( $P(n-i)$ ), calculating  $P(n)$  at a sampling point at the end of the frame would give an expected quantization distortion for the frame as a function of the expected quantization distortion ( $P(n-i)$ ) of each of the previous quantization levels in the frame.

Regarding claim 19, which inherits the limitations of claim 18, Kumazaki et al. discloses determining a spectral shape of the expected quantization distortion of the frame as a function of an error criterion used during the sample-by-sample quantization (Figs. 10 and 11, column 7, lines 20-42).

Regarding claim 20, which inherits the limitations of claim 19, Kumazaki et al. discloses approximating the spectral shape of the expected quantization distortion (Figs. 10 and 11, column 7, lines 20-42) of the frame as flat (white noise).

***Allowable Subject Matter***

4. Claims 1-3, 5-17, 21-45 are allowable over prior art because related references do not disclose identifying an expected quantization distortion for each of the quantization levels in a

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frame; summing the expected quantization distortion; and removing the summed expected quantization distortion.

***Conclusion***

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Curtis B. Odom whose telephone number is 571-272-3046. The examiner can normally be reached on Monday- Friday, 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on 571-272-3056. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Curtis Odom  
September 28, 2004

  
**STEPHEN CHIN**  
**SUPERVISORY PATENT EXAMINE**  
**TECHNOLOGY CENTER 2600**